

51. The composition of claim 48, wherein said A β peptide is A β 42.
52. The composition of claim 48, wherein the pH is about 8.5 to about 12.
53. The composition of claim 52, wherein the pH is about 9 to about 10.
54. The composition of claim 48, wherein the A β peptide is substantially in a random coil conformation.
- 10 55. The composition of claim 48, wherein the A β peptide has a concentration of from about 0.05 mg/ml to about 2.0 mg/ml.
- 15 56. The composition of claim 48, wherein the composition further comprises a pharmaceutically acceptable adjuvant.
57. The composition of claim 56, wherein the adjuvant is selected from the group consisting of incomplete Freund's adjuvant; MPL; QS-21; and alum.
- 20 58. The composition of claim 49, wherein the pharmaceutically acceptable buffer is selected from the group consisting of amino acids, salts and derivatives thereof; pharmaceutically acceptable alkalinizers, alkali metal hydroxides and ammonium hydroxides, organic and inorganic acids and salts thereof; and mixtures thereof.
- 25 59. The composition of claim 58, wherein the pharmaceutically acceptable buffer is glycine (sodium glycinate) or arginine (arginine hydrochloride).
60. A composition comprising a sterile aqueous solution comprising at least 0.01 mg/ml of A β peptide wherein said aqueous solution is maintained at a pH sufficient to solubilize
30 said A β peptide.
61. The composition of claim 60 wherein the solution is maintained at such a pH by use of an effective amount of a pharmaceutically acceptable buffer.

62. A lyophilized composition of A β peptide which composition is prepared by the process of:

- a) freezing a sterile aqueous solution having at least 0.01 mg/ml of A β peptide wherein said aqueous solution is maintained at a pH sufficient to solubilize said A β peptide; and
- b) lyophilizing the frozen composition prepared in a) above.

63. The composition of claim 62 wherein said A β peptide is a long form of A β peptide.

10 64. The composition of claim 62, wherein said A β peptide is A β 42.

15 65. The composition of claim 62, wherein the solution is maintained at such a pH by use of an effective amount of a pharmaceutically acceptable buffer.

20 66. The composition of claim 65, wherein the pharmaceutically acceptable buffer is selected from the group consisting of amino acids, salts and derivatives thereof; pharmaceutically acceptable alkalinizers, alkali metal hydroxides and ammonium hydroxides, organic and inorganic acids and salts thereof; and mixtures thereof.

25 67. The composition of claim 62, wherein the A β peptide is substantially in a random coil conformation.

68. The composition of claim 62, wherein the A β peptide has a concentration of
25 from about 0.05 mg/ml to about 2.0 mg/ml.

69. The composition of claim 62, wherein the composition further comprises a pharmaceutically acceptable adjuvant.

30 70. The composition of claim 69, wherein the adjuvant is selected from the group consisting of incomplete Freund's adjuvant; MPL; QS-21; and alum.

71. A composition comprising a sterile aqueous peptide suspension of at least 0.1 mg/ml of A β peptide at a pH of about 5 to about 7.

5 72. The composition of claim 71 wherein the aqueous peptide suspension also contains an effective amount of a pharmaceutically acceptable buffer.

73. The composition of claim 71 wherein said A β peptide is a long form of A β peptide.

10 74. The composition of claim 73 wherein said A β peptide is A β 42.

75. The composition of claim 72 wherein the pharmaceutically acceptable buffer is selected from the group consisting of amino acids, salts and derivatives thereof; pharmaceutically acceptable alkalinizers, alkali metal hydroxides and ammonium hydroxides, organic and inorganic acids and salts thereof; and mixtures thereof.

15 A1 76. The composition of claim 71 having 0.1 to 0.8mg/ml of A β 42 peptide, 10 mM glycine, and an acid sufficient to adjust the pH to about 5.5 to about 6.5.

20 77. The composition of claim 75 further comprising one or more excipients chosen from the group consisting of tonicity modifiers, surfactants, and wetting agents.

78. The composition of claim 75 wherein the composition further comprises a pharmaceutically acceptable adjuvant.

25 79. The composition of claim 77 wherein the composition further comprises a pharmaceutically acceptable adjuvant.

30 80. The composition of claim 79 wherein the adjuvant is selected from the group consisting of incomplete Freund's adjuvant; MPL; QS-21 and alum.

81. The composition of claim 79 having about 0.1 to about 1.0 mg/ml of A β 42 peptide in 10 mM glycine, and at least 0.1 mg/ml of QS-21 in an amount effective to form a visually clear suspension, having a pH of about 6.

5 82. A process for preparing a sterile composition of a long form of A β peptide comprising:

adjusting the pH of an aqueous solution sufficient to solubilize the A β peptide therein;

dissolving into the solution an amount of the A β peptide sufficient to achieve an immunogenic concentration for a mammal; and

filtering the resulting solution through a uniform pore size membrane said pore size being in a range capable of excluding bacteria and passing substantially all of the A β peptide through the membrane.

10 15 83. The process of claim 82 wherein the filtration is effected with a hydrophilic polymer membrane having a uniform pore size of about 0.22 microns.

(2) 84 The process of claim 82, wherein the amount of A β peptide recovered after filtration is greater than 50%.

20 85. The process of claim 82, wherein the prefiltration solution contains at least one diluent chosen from the group consisting of pharmaceutically acceptable buffers having a concentration of from about 5 mM to about 45 mM.

25 86. The process of claim 85, wherein the prefiltration solution contains a tonicity modifying agent from about 0.9% to about 6.0%(w/v).

87. The process of claim 85, wherein the prefiltration solution contains a surfactant from about 0.02 to about 1.0 % (w/v).

30 88. The process of claim 85, wherein the prefiltration solution contains a chelating agent from about 0.1mM to about 1.0 mM.

89. The process of claim 85 wherein the pH of a sterile solution resulting from filtration of the prefiltration solution is adjusted to pH about 5 to about 7 to provide a peptide suspension.

5 90. A method for preventing or treating Alzheimer's disease in a mammal comprising administering to said mammal a sufficient amount of a sterile aqueous composition comprising at least 0.05 mg/ml of A_β peptide to induce an immunogenic response in said mammal wherein said aqueous solution is maintained at a pH sufficient to solubilize said A_β peptide.

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91. The method of claim 90, wherein the method further comprises administering a pharmaceutically acceptable adjuvant separately or admixed in within the said sterile composition.

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92. The method of claim 90, wherein the sterile composition is according to claim 81.

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93. A method of invoking antibody response against an A_β peptide in a mammal in need of such an antigenic response comprising:
parenterally administering an immunogenic amount of a sterile composition of a long form of A_β peptide.

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94. The method of claim 93, wherein the method further comprises administering a pharmaceutically acceptable adjuvant separately or admixed in within the said sterile composition.

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95. The method of claim 93, wherein the sterile composition is according to claim 81.

96. A composition comprising a suspension of at least 0.1 mg/ml A_β peptide and an effective amount of QS-21 to form a visually clear suspension in the pH range of 5 to 7.

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97. A composition comprising a suspension of at least 0.1 mg/ml A_β peptide and an effective amount of DPPC(dipalmitoyl phosphatidyl chloride) to form a visually clear suspension in the pH range of 5 to 7.